



alignment mark; and

a driving mechanism adjusting a region to be irradiated with said recording light beam relative to said holographic recording medium on the basis of said alignment mark.

2. The recording apparatus for a holographic recording medium according to claim 1, wherein said recording light beam to be irradiated onto said holographic recording medium includes a signal light beam and a reference light beam; and said hologram is formed by writing an interference fringe by intersecting said signal light beam with said reference light beam in said holographic recording medium.

3. The recording apparatus for a holographic recording medium according to claim 1, wherein said recording light beam is irradiated parallel with the track of said holographic recording medium from said recording laser to said medium.

4. The recording apparatus for a holographic recording medium according to claim 1, wherein the wavelength of said alignment light beam to be irradiated from said alignment laser is selected from those where a refractive index of said recording region after the recording of said hologram is substantially identical with a refractive index before the recording of said hologram.

5. The recording apparatus for a holographic

recording medium according to claim 1, wherein the wavelength of said alignment light beam to be irradiated from said alignment laser is selected from those where a magnitude of change in absorption  
5    Δ coefficient of said recording region after the recording of said hologram becomes substantially maximum.

6. The recording apparatus for a holographic recording medium according to claim 1, further  
10    comprising;

        a beam splitter splitting said recording light beam into two beams, one of which is utilized as a reference light beam;

        a spatial modulator providing information to  
15    the other beam obtained from said splitting to obtain a signal light beam; and

        two mirrors enabling said signal light beam to intersect with said reference light beam in said medium.

20    7. The recording apparatus for a holographic recording medium according to claim 6, wherein said signal light beam and said reference light beam are irradiated onto said holographic recording medium at  
25    an incident angle making it impossible to generate a primary interference of said alignment light beam.

8. The recording apparatus for a holographic recording medium according to claim 1, wherein said

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an alignment laser irradiating an alignment light beam onto said holographic recording medium, said

5           a first lens converging said recording light beam  
irradiated from said recording laser and directing the  
converged recording light beam toward said holographic  
recording medium;

15       a photodetector detecting a light intensity of  
      said alignment light beam reflected from said  
      holographic recording medium to recognize said  
      alignment mark; and

12. The recording apparatus for a holographic recording medium according to claim 11, wherein said recording light beam to be irradiated onto said holographic recording medium includes a signal light beam and a reference light beam; and said hologram is formed by writing an interference fringe by intersecting said signal light beam with said reference

light beam in said holographic recording medium.

13. The recording apparatus for a holographic recording medium according to claim 11, wherein said recording light beam is irradiated parallel with the groove of said recessed/projected surface of said reflective layer of said holographic recording medium from said recording laser to said medium.

14. The recording apparatus for a holographic recording medium according to claim 11, wherein the wavelength of said alignment light beam to be irradiated from said alignment laser is selected from those where a refractive index of said recording region after the recording of said hologram is substantially identical with a refractive index before the recording of said hologram.

15. The recording apparatus for a holographic recording medium according to claim 11, wherein the wavelength of said alignment light beam to be irradiated from said alignment laser is selected from those where a magnitude of change in absorption coefficient of said recording region after the recording of said hologram becomes substantially maximum.

16. The recording apparatus for a holographic recording medium according to claim 11, further comprising;

a beam splitter splitting said recording light

beam into two beams, one of which is utilized as a reference light beam;

5 a spatial modulator providing information to the other beam obtained from said splitting to obtain a signal light beam; and

two mirrors enabling said signal light beam to intersect with said reference light beam in said medium.

10 17. The recording apparatus for a holographic recording medium according to claim 16, wherein said signal light beam and said reference light beam are irradiated onto said holographic recording medium at an incident angle making it impossible to generate a first order diffraction of said alignment light beam.

15 18. The recording apparatus for a holographic recording medium according to claim 11, wherein said second lens converging said alignment light beam to be irradiated from said alignment laser is formed integral with said first lens converging said recording light beam to be irradiated from said recording laser.

20 19. The recording apparatus for a holographic recording medium according to claim 11, wherein the wavelength of said recording light beam is shorter than the wavelength of said alignment light beam.

25 20. The recording apparatus for a holographic recording medium according to claim 12, wherein said interference fringe is written in a direction





alignment mark; and

a driving mechanism adjusting a region to be irradiated with said reading light beam relative to said holographic recording medium on the basis of said

5 \ alignment mark.

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1. *What is the purpose of the study?*  
 2. *What are the research questions or hypotheses?*  
 3. *What is the study design?*  
 4. *What are the participants and sample size?*  
 5. *What are the independent and dependent variables?*  
 6. *What are the data collection methods?*  
 7. *What are the data analysis methods?*  
 8. *What are the results of the study?*  
 9. *What are the conclusions and implications of the study?*  
 10. *What are the limitations of the study?*  
 11. *What are the strengths of the study?*  
 12. *What are the future research directions?*  
 13. *What are the ethical considerations?*  
 14. *What are the funding sources?*  
 15. *What are the conflicts of interest?*  
 16. *What are the acknowledgments?*  
 17. *What are the references?*  
 18. *What are the appendices?*  
 19. *What are the tables and figures?*  
 20. *What are the footnotes?*  
 21. *What are the glossary and abbreviations?*  
 22. *What are the contact information and correspondence?*  
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